

Swallow Rock (CA-FRE-2485): An Outstanding Petroglyph Site in the Southern Diablo Range, Fresno County, California

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Swallow Rock is a large outcropping of Franciscan-assemblage blueschist located at the headwaters of Jacalitos Creek, approximately ten miles southwest of Coalinga, in western Fresno County, California. Recent archaeological investigations by the Coalinga Archeological Research Group (COALARG) revealed that this rock formation contains a bewildering amalgamation of prehistoric petroglyphs on its upper surfaces, including numerous pecked abstract curvilinear figures, grooved ovals, gridded circles, "cups-and-rings," deeply incised lines, scratched lines, extensively pecked areas, and several cupules. Some of the figures exhibit evidence of prehistoric quarry activity. Seven distinctive styles were recognized. Stylistic comparisons and relative dating of different styles is made possible by superimposition on several panels. This paper presents a description of the site and its rock art panels. Interpretations regarding stylistic classification, relative dating, and possible associations with the North Coast and Central Sierra Nevada Style Areas are also discussed.

Introduction

Coalinga, a quiet town of 7000 people, is located 60 miles southwest of Fresno at the western edge of the San Joaquin Valley. It is situated at the junction of three streams and near the former location of *Poso Chane*, a major winter village of the Tachi tribelet of

the Southern Valley Yokuts. This village formerly stood beside a deep pool of water ("poso") surrounded by a lush marshland. The native Tachi people lived here most of the year, although there were regular excursions to the "hill country" to harvest wild plants as they ripened (Wallace 1990:4). Recently, Coalinga has served as the base camp for our archaeological investigations within the southern Diablo Range (the "hill country" visited by the Tachi Yokuts), a region in California which has received relatively little archaeological attention.

Archaeological test excavations at "The Corral Site" (CA-FRE-1346), a late prehistoric village situated in Los Gatos Creek canyon (Jenkins 1992), initiated the formation of the study group called COALARG. COALARG's principal objective is to identify, record, and protect the abundant archaeological resources found in the area. Since its formation in 1987, COALARG has conducted numerous surveys in the canyons, foothills, and mountains surrounding Coalinga within a study area measuring 60 miles long by 30 miles wide. Study area boundaries extend from the Kern/Fresno county line north to Shields Avenue and from Interstate Highway 5 west to the crest of the Coast Range. To date, COALARG has identified and recorded over 100 archaeological sites ranging from major villages to temporary camps, lithic workshops, rockshelters, quarries, and rock

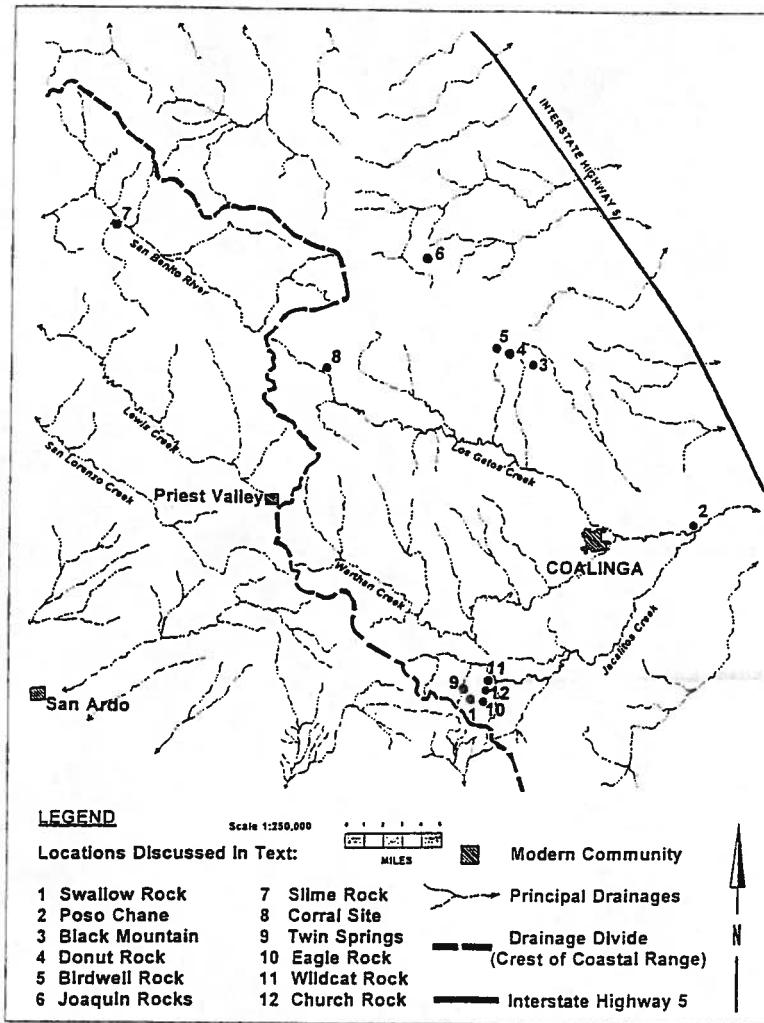


Figure 1. Locations discussed in the text.

art sites. An inventory and analysis of seven rock art sites located in the study area revealed the presence of a complex rock art assemblage with at least two distinctive styles and three enigmatic sites (Foster, Jenkins, and Betts 1990). Since that rock art study was completed, an additional petroglyph site has been identified and recorded. Known as Swallow Rock, this remarkable site is the subject of this paper.

Previous Research

Swallow Rock was first visited by archaeologists on June 25, 1939 during a reconnaissance of the central San Joaquin Valley region (Hewes 1940, Hewes and Massey

1942:25-26). These reports contain an illustration and brief description of some of the petroglyphs they observed, as well as general observations pertaining to the archaeological sensitivity of the region. The California Archaeological Inventory assigned the trinomial CA-MNT-239 to Swallow Rock, based upon this reported information. The site record describes "petroglyphs on a serpentine boulder" (Hewes and Massey 1939). Although its exact location was not well recorded, sufficient information was present to confirm that this is the same site as Swallow Rock.

The site was revisited by a COALARG team in June and July, 1990, when it was formally recorded. Because the site lies in *Fresno*, not *Monterey*, county, the correct permanent trinomial CA-FRE-2485 has been assigned and the earlier designation withdrawn (Foster *et al.* 1990).

Site Description

Swallow Rock is a large outcropping of Franciscan-assemblage blueschist containing chlorite and glaucophane. It is situated on a bench just below the crest (east) of the Coast Range, at the headwaters of Jacalitos Creek, the southernmost of the three streams which converge near *Poso Chane*, at an elevation of 2360 feet (Figure 1). Vegetation surrounding the site includes extensive grassland and oak-woodland communities, and numerous riparian species such as willow and cottonwood occur in the lower drainages (Figure 2). A coniferous forest composed of digger and Coulter pine exists on the crest of the nearby ridge which separates Fresno and Monterey counties. Three other massive outcroppings

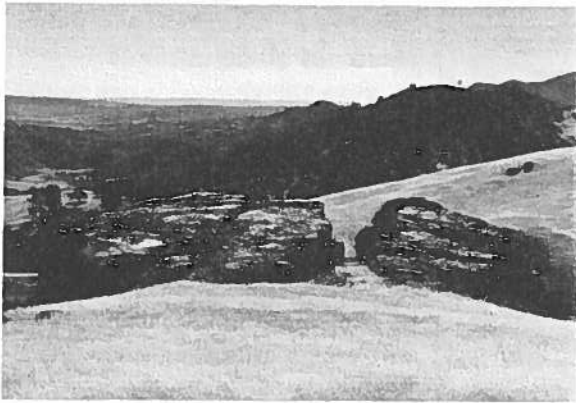


Figure 2. View of Swallow Rock looking east.

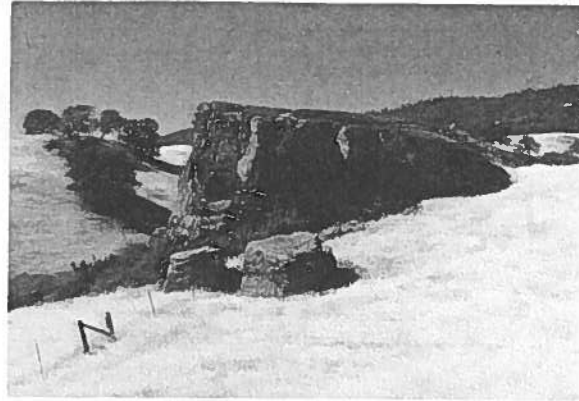


Figure 3. View of Swallow Rock looking south.

of blueschist named Eagle Rock, Church Rock, and Wildcat Rock lie nearby, protruding from the same geological formation. The large bench containing Swallow Rock has a northeastern aspect and is fully open and exposed to the elements of sun and precipitation. It is so named for the numerous swallow nests on the east face and the distinctive white surfaces below them, apparently formed from sustained deposition of swallow guano over many years. Fortunately, this swallow nesting activity has not caused any damage to the rock art panels.

Swallow Rock is 36 m long (N-S), 24 m wide (E-W), and ranges in height from nearly ground level on the west edge to over 15 m at its eastern escarpment (Figure 3). Broken into three main sections each containing at least one rock art panel, this distinctive metamorphic rock is of variable hardness. Some areas with a light blue surface are as soft and as easy to carve as soapstone, while other areas with a reddish-colored patina are much harder. Both types of surfaces contain petroglyphs (Figure 4).

A thorough survey of the surrounding area revealed no other cultural materials such as midden, flake scatters, artifacts, or housepits in direct physical association with the site. We did find a small prehistoric village site a

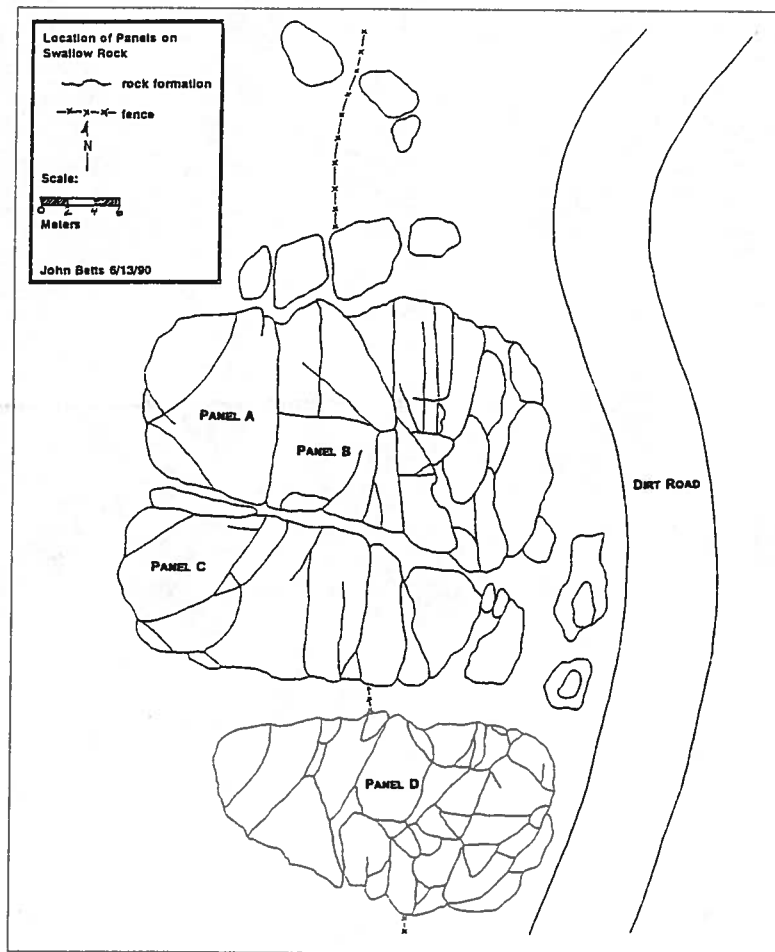


Figure 4. Swallow Rock, location of petroglyph panels.

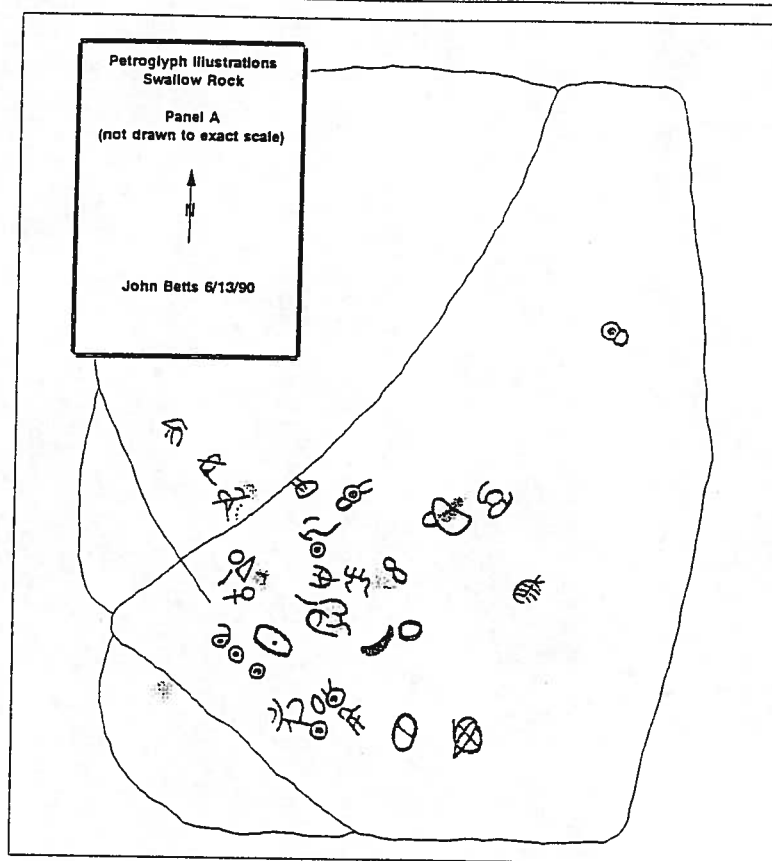


Figure 5. Swallow Rock, petroglyphs on Panel A.

short distance (500 meters) northwest. This occupational deposit, named "Twin Springs" (CA-FRE-2474), is situated on a long bench between two gulches, one of which contains two springs. A small, low, blueschist outcropping with five conical bedrock mortars; a dark midden deposit; several hundred chert flakes and artifacts; a large chert projectile point; and a sandstone bowl were found (Foster and Johnson 1990). Wildcat Rock and Church Rock were inspected for additional rock art with negative results. It seems that Swallow Rock is the only rock art site in the immediate vicinity, and Twin Springs (a five-minute walk away) is the only prehistoric occupation site in close proximity. A single, pecked stream cobble was found in a grassy field approximately 250 meters northwest, midway between Swallow Rock and Twin Springs, along an apparent trail. Unquestionably a prehistoric artifact, its function or possible associa-

tion with the rock art panels could not be determined.

Most of the rock art panels at Swallow Rock occur on smooth horizontal surfaces although the sloping and vertical surfaces at Panel C also are decorated with petroglyphs. Rock art is more concentrated on the softer and smoother surfaces, although it also occurs on the harder surfaces on the top of the rock, especially those with a reddish-colored patina. Each of the four main panels was carefully inspected and recorded with line drawings (Figures 5-8). In these illustrations, an attempt was made to display the petroglyph elements in their approximate areal distribution in order to portray a sense of the relationship between the various different elements and styles. This precludes the individual elements being

drawn to a precise scale, which would not have been possible within the format of these illustrations. The recording could be conducted only in the early morning daylight hours as oblique lighting conditions are necessary to fully view and accurately record the rock art panels.

Description of Swallow Rock Petroglyphs

Careful inspection of the panels revealed Swallow Rock to contain a bewildering amalgamation of petroglyphs, composed of at least seven distinctive types or "styles," many of which overlap. These styles were recognized by similarities and/or differences in the subject matter, depth, relative repatination, host surface background, and methods of execution of the petroglyphs. Superimposition on several panels helped to confirm the validity of our stylistic divisions. Painstaking exami-

nation of panels exhibiting superimposition enabled us to stratigraphically separate rock art motifs and determine their relative ages and stylistic classification. The following seven petroglyph styles were identified.

Style 1 (Abstract Curvilinear)

Several dozen abstract motifs, similar in design, exist at all four panels. Most consist of curvilinear figures although some rectilinear elements such as grids and straight lines are present. These figures are deeply pecked and occasionally ground into the harder rock surfaces with red patina (Figure 9). Typical elements include abstract curvilinear meanders, circles, straight lines, linked circles, gridded circles, gridded ovals (Figure 10), and complex arrangements containing combinations of all of these (Figure 11). They were pecked through the patina either directly with a sharply pointed implement or, perhaps, with a punch and hammerstone.

Style 2 (Grooved Oval)

Approximately 16 grooved oval figures occur, primarily at Panel C. These consist of a single deep oval groove which encloses a bulbous, raised center (Figure 12). Most are approximately 18 cm long and 13 cm wide, with the groove 2-4 cm deep. Many, but not all of the oval centers have been removed, apparently, to quarry the soft blueschist centers (Figure 13).

Style 3 (Cup-and-Ring)

Eighteen motifs composed of a single cupule enclosed by a single, deeply grooved ring were recorded. Like Style 2, many were carved in *bas relief*, and many appear to have

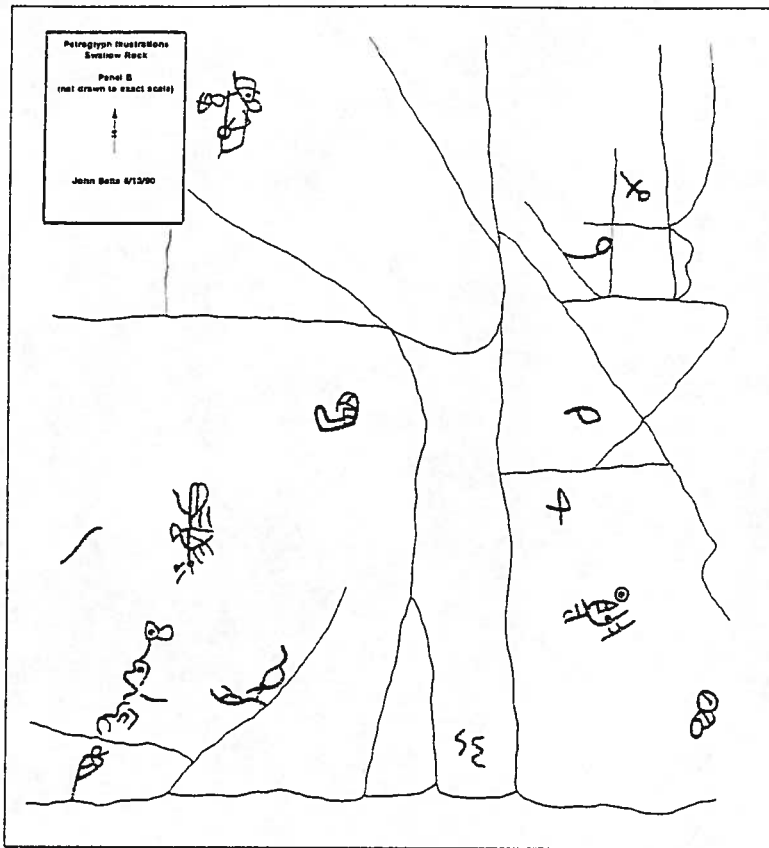


Figure 6. Swallow Rock, petroglyphs on Panel B.

been quarried (Figures 14 and 15). Most were carved or ground—not pecked—and are approximately 9 cm in diameter. The single groove measures 2-3 cm wide and 2 cm deep. The center cups are 2-3 cm wide and 2 cm deep.

Style 4 (Deeply Incised Lines)

Hundreds of deeply incised lines occur at Panel C (Figure 16). These often occur in tight clusters of parallel lines. Most lines are perpendicular to the surface of the ground although both parallel and oblique orientations exist. The lines exhibit a deep V-shape profile from incising with a blade implement, probably a chert biface.

Style 5 (Scratched Lines)

Hundreds of fine scratched lines also occur at Panel C, usually below Style 4. These occur in complex motifs including grids, cross-

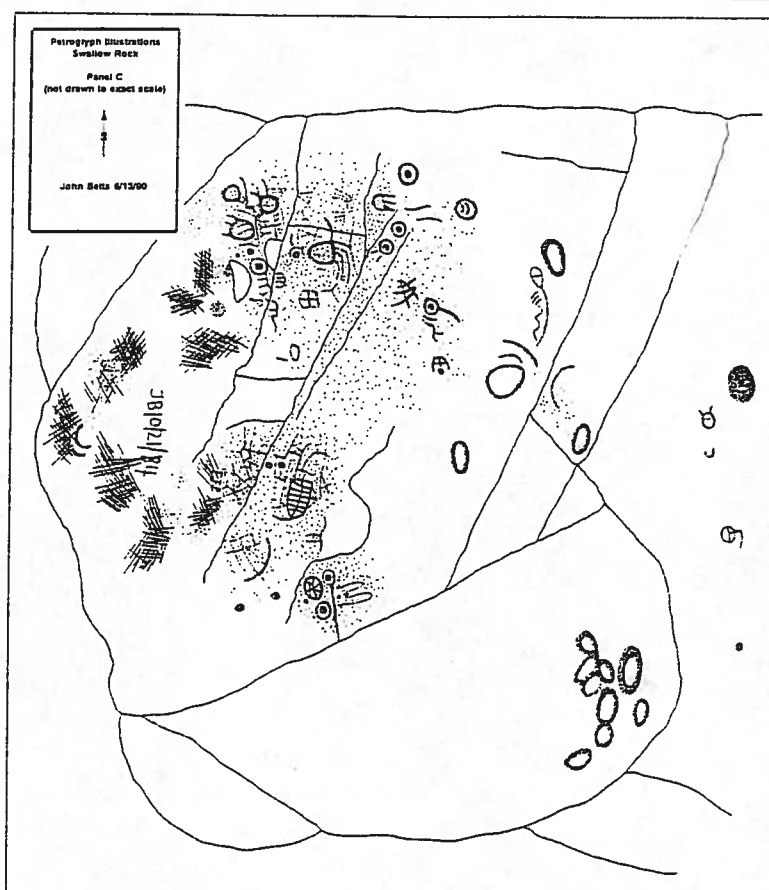


Figure 7. Swallow Rock, petroglyphs on Panel C.

hatches, and tight clusters. Extremely shallow, they were formed by scratching through the rock surface with a blade-like implement.

Style 6 (Pecking)

Extensive pecked areas exist on several panels, especially at Panel C. Sometimes the individual peck marks were clustered to form crude, abstract motifs (Figure 17), but random, non-clustered pecking also occurs over extensive areas. Many hundreds of individual "dints" formed by massive blows from a sharply pointed rock are clearly evident.

Style 7 (Cupules)

Approximately twelve cupules were recorded. This total does not include the centers of Style 3 petroglyphs, which were considered a separate style based on numerous observed attributes. Unlike the Style 3 cen-

ters, these circular pits were most often deeply pecked (not ground) and are slightly larger, measuring from 4-6 cm wide and 3-4 cm deep. They are never clustered or in orderly rows, are not incorporated with other designs, are randomly and infrequently distributed across two of the lower panels, and are always found above other petroglyph styles (Figure 18).

Vandalism

While this is not a prehistoric style, we felt it important to record as part of the documentation of these petroglyphs. At the time of our field investigations during June and July of 1990, one incident of modern vandalism was clearly evident. The inscription "JB 10/21/84" had been pecked across the lower part of Panel C, overlapping some of the fine scratched lines on this panel. The pecking that forms this graffiti is much fresher in appearance than any other petroglyph forms on the outcrop.

Superimposition

The use of stratigraphic analysis as a means to separate and date overlapping cultural periods is a technique frequently used by archaeologists during excavation of stratified midden sites. This method of analysis also can be employed during rock art research if multiple superimposed styles exist at certain site panels. This technique was used at the Keystone Petroglyph Site (CA-MEN-2200) with great success. Analysis of this complex petroglyph boulder revealed that several distinctive North Coast Styles were carved into the rock over a extended period of time; through superimposition, their relative ages could be determined (Gary and McLear-Gary 1988).

The technique of stratigraphically separating rock art styles was employed by the authors at Swallow Rock and at "Slime Rock" (CA-SBN-12), a similar site located 30 miles northwest (Figure 1). Slime Rock also is a large blueschist boulder which contains grooved ovals, cups-and-rings, deeply incised lines, and numerous cupules (Mark, Newman, and Rogers 1990). The site was re-examined during our study and a determination was made that, as at Swallow Rock, several different periods of petroglyph-making took place here, and that the styles changed over time. This can be demonstrated through superimposition where different styles overlap each other on the same panel, indicating their relative ages. Three excellent examples of superimposition occur at Swallow Rock Panel C, one at Swallow Rock Panel B, and another at Slime Rock (see Table 1).

One area at Panel C clearly shows that Style 5 petroglyphs (Scratched Lines) were applied first, followed by Style 4 (Deeply Incised Lines), and finally by Style 7 (Cupules). This order of superimposition—cupules *last*, incised lines *middle*, fine scratched lines *first*—never varies and is evidence of successive styles. There is a noticeable difference in relative patination as well. The cupules appear vividly fresh while many of the other petroglyphs, especially those belonging to Style 2, do not. Another locus at Panel C shows Style 7 cupules above Style 6 pecking and both are seen above Styles 1, 2, and 3 (Figure 19). At Slime Rock, Style 4 incised lines were applied over Style 2 grooved ovals.

Examination of both sites clearly demonstrates that the Style 1 and Style 2 petro-

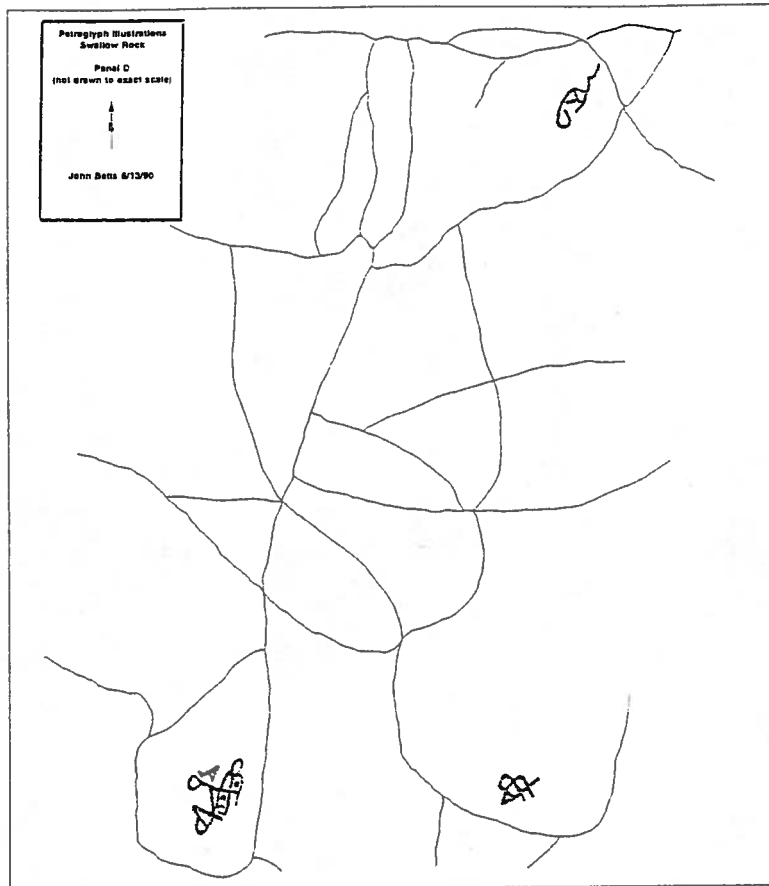


Figure 8. Swallow Rock, petroglyphs on Panel D.

glyphs are the oldest, always occurring below the other panels. These were followed by scratched lines and cups-and-rings. These in turn were followed by deeply incised lines. The last group of petroglyphs include pecked examples and cupules. The cupules are unquestionably the last to be applied.

Stylistic Comparisons

Some of the Swallow Rock petroglyphs are remarkably similar to those typical of the North Coast and Central Sierra Style Areas as described by Clewlow (1978) and are probably of a similar age and cultural tradition. The presence of deeply incised lines and cupules on soft schist boulders is a pattern typical of the North Coast Style Area (Clewlow 1978). Based upon ethnographic data, these are thought to be associated with late prehistoric or protohistoric rituals to cure infertile-



Figure 9. Style 1 petroglyphs on red patina.



Figure 11. Abstract curvilinear glyphs (Style 1).

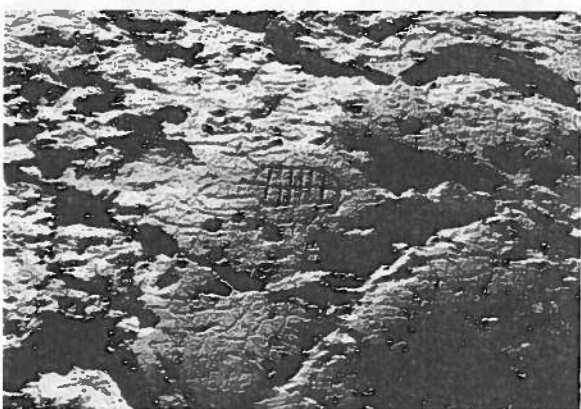


Figure 10. Gridded-oval petroglyph (Style 1) superimposed by pecking and cupules, Panel C.

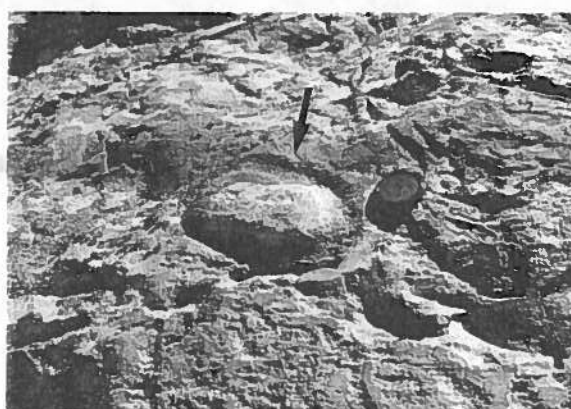


Figure 12. Large grooved oval with bulbous center (Style 2), Panel C.

ity (Hedges 1983). Several hundred similar sites occur throughout the North Coast Range, with concentrations in Mendocino and Sonoma counties.

The deeply grooved ovals (Style 2) at Swallow Rock can easily be assigned to another North Coast rock art tradition named the Pecked Curvilinear Nucleated Style (PCN). PCN petroglyphs are characterized by oval or circular grooves on soft schist boulders encompassing raised centers which often have been removed by quarrying (Parkman 1993). It is quite clear that both traditions are present at Swallow Rock. The significance of this site is in its location. Swallow Rock is the southernmost known occurrence of petroglyphs of this North Coast Style tradition in interior California, while two sites far-

ther south in coastal Chumash territory have been reported: Cayucos Creek in San Luis Obispo County (Fleshman 1975:107), and *Soxtonocmu* in Santa Barbara County (Lee 1981:120, 123-124). The only other known site within the southern Diablo Range containing these attributes is Slime Rock, where PCN petroglyphs, incised lines, and cupules all occur on a large soft blueschist boulder.

In spite of a distance of over 100 miles, the Style 1 petroglyphs at Swallow Rock are remarkably similar to the abstract curvilinear motifs found at sites within the Central Sierra Nevada foothills, in particular, to those clustered near the junction of Mariposa and Merced counties. Similar examples include Brushy Canyon (CA-MRP-898), Dutchman Creek (CA-MRP-1), Exchequer Dam (CA-

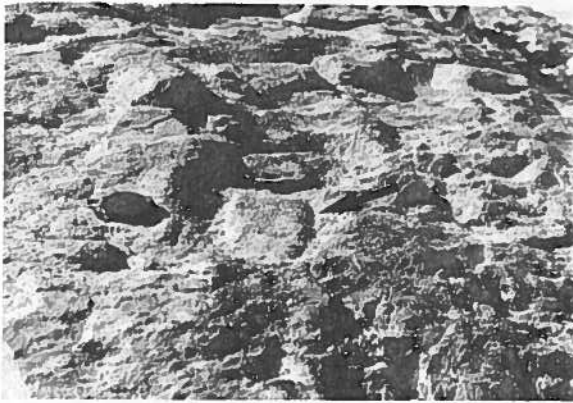


Figure 13. Style 2 petroglyph with quarried center, Panel C.

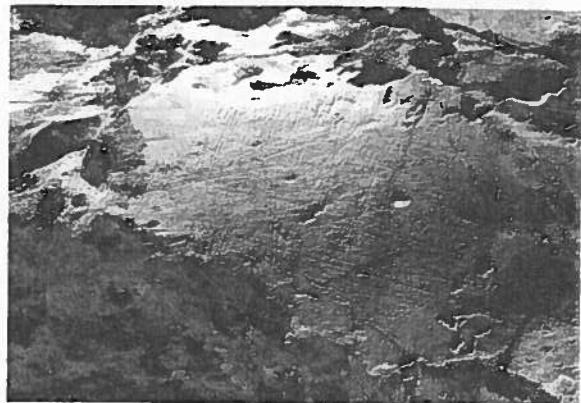


Figure 16. Incised and scratched lines (Styles 4 and 5), Panel C.



Figure 14. Arrows point to two cup-and-ring petroglyphs (Style 3) carved in *bas-relief*.



Figure 17. Clustered pecking motif (Style 6)C.



Figure 15. Style 3 petroglyph after center has been removed.



Figure 18. Arrows point to three of the cupules found at Swallow Rock.

MRP-546) and Horseshoe Bend (CA-CAL-5). This group of sites was classified as part of the High Sierra Abstract Representational Style and thought to be the oldest of the

seven rock art styles found in the northern and central Sierra Nevada, dating to possibly as early as 2000 B.C. (Payen 1966:94). Petroglyphs at these sites consist of numer-

Relative Ages of Petroglyph Styles Determined by Superimposition					
Location	Swallow Rock Panel C #1	Slime Rock CA-SBN-12	Swallow Rock Panel C #2	Swallow Rock Panel C #3	Swallow Rock Panel B #1
Relative Age (Youngest) ↑ ↓ (Oldest)	Style 7 (Cupules)		Style 7 (Cupules)	Style 7 (Cupules)	
	Style 4 (Deeply incised lines)	Style 4 (Deeply incised lines)	Style 6 (Pecking)	Style 6 (Pecking)	Style 6 (Pecking)
	Style 5 (Scratched lines)	Style 2 (Grooved oval)	Style 3 (Cup-and- ring), Style 1 (Abstract curvilinear)	Style 2 (Grooved oval)	Style 1 (Abstract curvilinear)

Table 1. Relative Ages of Petroglyph Styles.



Figure 19. Superimposed petroglyph styles on Panel C.

ous complex abstract curvilinear designs which were deeply pecked into boulder surfaces, often with abundant superimposition. A red colored patina was usually selected for the background. These traits match perfectly with Style 1 petroglyphs at Swallow Rock, which we classify as part of the same cultural tradition. It has been suggested that the Abstract Representational petroglyphs in the central Sierran foothills may have been left by Uto-Aztecs living in the San Joaquin Valley some 1300-600 years ago (Moratto 1984:542, 559-560). This hypothesis is based upon linguistic evidence of word borrowings from the Esselen, Yokutsan, Obispeño, and Chumash cultures, and thought to be evidence of the presence of Numic populations in the San Joaquin Valley at that time, which may explain the superficial resemblance this style has to Great Basin petroglyphs.

The Swallow Rock petroglyphs are remarkably dissimilar in form to those found in the Los Gatos Creek drainage, only ten miles

north. The *Coalinga Upland* and *Western San Joaquin Cupule* styles, defined in a previous rock art study (Foster, Jenkins, and Betts 1990), are absent. This could be due to a difference in the rock type (the Los Gatos Creek sites are all on sandstone), although such an explanation seems unlikely. A more plausible explanation is that either a chronological or a cultural difference exists between the two site areas.

Of the 76 cupule petroglyph sites discussed by Parkman (1986) in the northern section of the Diablo Range immediately to the north of our study area, none seems to display the complex variety of styles evident at Swallow Rock, although similar geological settings are common. Also, none of these sites seem to have anything remotely resembling rock art of the central Sierra Nevada, such as the abstract curvilinear glyphs found on Swallow Rock.

Interpretations

As with most petroglyph sites in California, we probably will never be able to determine the exact functions that Swallow Rock served for the prehistoric people who lived here. There are, however, two clues which shed some light on this question. One is found in the numerous circular and oval depressions where the raised centers of Style 2 and Style 3 petroglyphs have been removed. There is no doubt that some of these centers were quarried. Two previous researchers (Drake and Pilling 1950) interpreted the evidence at Slime Rock as representing quarry activity for the production of soapstone bowls. A different interpretation is that the PCN centers were quarried for the production of charmstones or other small artifacts (Parkman 1992:14-15). The quarry scars at both Swallow Rock and Slime Rock are far too small to have produced bowls. A removed PCN center would measure approximately 17-20 cm long, 10-13 cm wide, and 4-8 cm thick. A more likely explanation is that these centers were removed for use in the production of

small artifacts such as arrow shaft straighteners or pendants. Based upon examination of numerous large private artifact collections from this area, we determined that shaft-straighteners are the most common artifact made from this type of material, as dozens occur in these local collections (Hylkema 1992). Interestingly, these beautifully crafted implements are usually decorated with petroglyphs such as incised line patterns (Figure 20). Schist charmstones, however, are not common in local collections. Another artifact type likely to have originated from a PCN center is a pendant. One specimen (Figure 21) found on the Domengine Ranch near Coalinga is remarkably similar to the blueschist material at both Swallow Rock and Slime Rock and may have originated from one of these sites (Foster 1990:7).

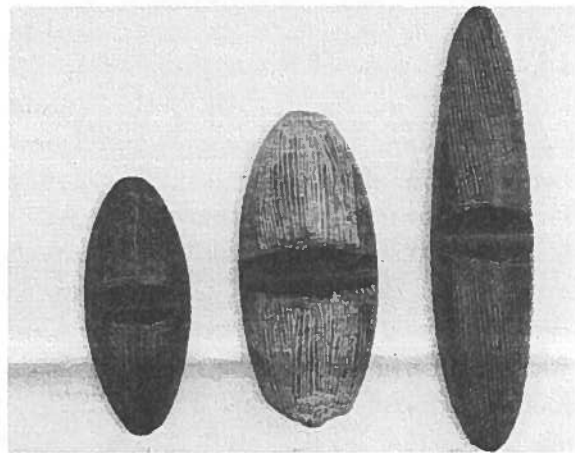


Figure 20. Arrowshaft straighteners with incised-line decoration, from the COALARG study area.

Another observation at Swallow Rock, which in fact may be nothing more than a curious coincidence, is the view afforded to those standing on its upper surface. In our previous study of the rock art near Coalinga (Foster, Jenkins, and Betts 1990) we presented evidence which suggested that at least three of the seven study sites had some connection with two distinctive landmarks in the area, Joaquin Rocks and Donut Rock. The sites in the mountains, such as Birdwell Rock

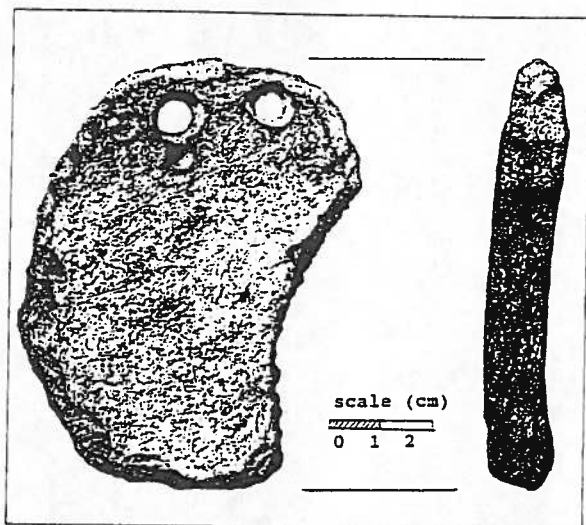


Figure 21. Schist pendant from the Domengine Ranch, possibly quarried at Swallow Rock.

(CA-FRE-2244) and Black Mountain (CA-FRE-2245), either contained panels interpreted to be renderings of these two rock formations, or were curiously situated so as to be in full view of them. Supporting this assumption, we found that both Joaquin Rocks and Donut Rock were again in full view from the top of Swallow Rock, even at a distance of over 20 miles, thanks to a gap in one of the closer ridges (Figure 22). Through another gap, the town of Coalinga can be seen, and in prehistoric and early historic times, the Tachi winter village of *Poso Chane* would have been in full view (Figure 23).

Conclusion

Any discussion of the absolute dating of the styles at Swallow Rock is limited by the apparent absence of datable cultural materials at the site. It seems safe to conclude, however, that they range in age from the Late Archaic to the Late Prehistoric periods. Style 1 is the oldest, and if we are correct to assume that it is culturally related to the abstract curvilinear petroglyphs of the Sierra Nevada, it may date to 2000 B.C. (Payen 1966:94). The cupules are the most recent petroglyphs and probably are associated with the Late Prehistoric occupation of the area

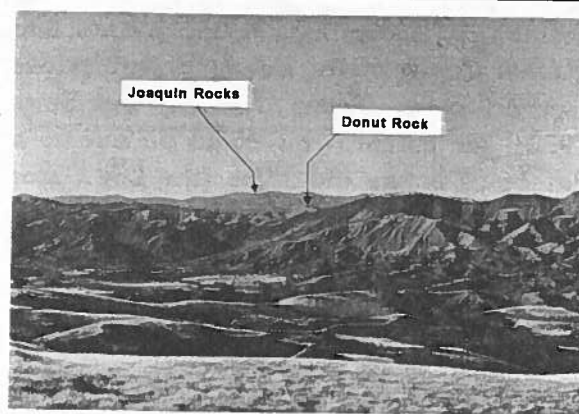


Figure 22. View of Joaquin Rocks and Donut Rock from top of Swallow Rock.



Figure 23. View of *Poso Chane* from top of Swallow Rock.

by either the Southern Valley Yokuts or their Salinan neighbors to the west. The possible association with Donut Rock and Joaquin Rocks matches a pattern we attributed to possible visitation by coastal rather than interior people (Foster, Jenkins, and Betts 1990:66). Swallow Rock may also have been visited by Uto-Aztec speakers inhabiting the San Joaquin Valley region prior to the arrival of the Yokuts.

Our research supports the conclusion that the Southern Diablo Range is a region containing a diverse assemblage of prehistoric rock art. Swallow Rock is an extremely complex petroglyph site with several distinctive superimposed styles. Some styles are nearly identical and probably culturally related to petroglyph traditions found in both the North

Coast and the Central Sierra Style Areas. This combination of both Sierran and North Coast traits is not so far known to occur at any other rock art site in California. Also, Swallow Rock appears to be the only site containing Sierran style petroglyphs located outside of the Sierra Nevada. Relative dating and stylistic comparisons are possible via abundant superimposition on several panels. Because of these factors, we feel that Swallow Rock should be recognized as a site with the highest order of archaeological significance.

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